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(71)Applicant : OLYMPUS OPTICAL CO LTD
TOKAI UNIV

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(72)Inventor : KASAI HIROAKI
TSUCHINO MASAMICHI
IURA SHIGEMI
MURAHARA MASATAKA

(54) SURFACE MODIFICATION OF RESIN TUBE

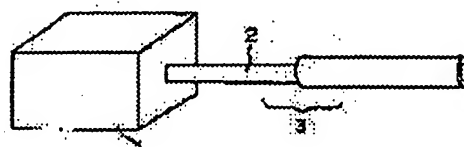
(57)Abstract:

PURPOSE: To simply and safely improve the wettability, etc., of a tube made of a resin having a bond to fluorine or hydrogen in a branched chain, irrespectively of the treated area inside the tube and the diameter of the tube by bringing a compound containing a specified element into contact with the inside wall of the tube and irradiating the inside wall with an actinic radiation having a specified energy.

CONSTITUTION: Examples of the lasers and ultraviolet rays included in actinic radiations include excimer lasers from ArF, KrF or XeCl, harmonic waves of lasers of solids, gases and dyes and light from an ultraviolet lamp. The wavelength is suitably 300nm or below, and the photon energy is suitably

128 kcal or above when the branched chain has a bond to fluorine, and is 80 kcal or above when the branched chain has a bond to hydrogen. It is suitable that the actinic radiation is first led to the irradiation section through a waveguide and then used for irradiation.

Although an element selected from among Si, Ti, H, Li, Ga, Ba, Al, B, etc., is utilizable as the element for improvement, H or F is preferable. Fig. shows a combination including an ArF excimer laser 1, a waveguide 2 made of synthetic quartz and a sample 3.



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